



Commercial Innovation Division

January 2009

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R2EV to Unveil Interchangeable Battery Vehicle at Northwest Energy Innovation Summit

(Boise) R2EV, LLC a Meridian, Idaho company, is poised to change the way Americans travel. Alex Livingston, founding partner and President of R2EV has designed an interchangeable battery for electric cars, and an exchange station concept for distributing them. These innovations will expand the range of electric vehicles while limiting the impact that recharging them will have on electrical capacity and loads.



R2EV Co-Founder and President Alex Livingston shares some of the features of his prototype vehicle with Commerce Director Don Dietrich.

January 2009 Events Calendar

January 8 **Kickstand Southern Idaho** Twin Falls

Events are held the 1st Thursday of the month at 6:00 - 7:30 pm
Pandora's Restaurant (516 Hansen St., Twin Falls) Visit
www.kickstandidaho.com

January 8 **Kickstand** Boise

The Kickstand event in Boise is held the 2nd Thursday of each month from 5:30 - 7:30 pm at the WaterCooler (1401 W. Idaho, Boise) Visit
www.kickstandidaho.com

Livingston is tentatively planning an unveiling of his prototype vehicle and the battery exchange concept on Wednesday, January 14th at the Northwest Energy Innovation Summit during their Entrepreneur Showcase at the Boise Centre on the Grove.



The R2EV interchangeable battery module. Each battery weighs approximately 25 pounds.

R2EV emerged from Livingston's coursework in the Boise State University Entrepreneurial Management Program, and earned widespread acclaim when the company won business plan competitions at the Northwest Venture Championship and TechLaunch 5.0 in 2008. For more information on R2EV, visit their website at www.r2ev.com.

For more information on the Northwest Energy Innovation Summit taking place January 12-14, visit their website at www.nwenergysummit2009.com.

Eagle-Star Area Targeted for High-Tech Hub

(Treasure Valley) A coalition of private businesses and state and local government officials are working together to develop the Eagle-Star Technology Corridor, or ESTech, an area envisioned as home to a number of business parks catering exclusively to high-tech companies.

ESTech's initial focus is to convince large and small technology companies operating in high-cost states as well as small industry startups already operating in the Treasure Valley to locate in the Eagle-Star area.

ESTech is the latest entity attempting to bring new business to the Treasure Valley, although it will be the only one devoted solely to pursuing high-tech companies and will concentrate on the Eagle-Star area exclusively.

Supporters hope to raise \$100,000 in donations from "everybody who would benefit" from an influx of new residents to the area, including area retailers, banks, real estate agents and developers.

House Majority Leader Mike Moyle, R-Star, an ESTech supporter, said Idaho lawmakers took a step toward helping attract new businesses by passing his Small Employer Incentive Act in 2005.

January 12 Economic Advisory Council Meeting Boise

A meeting of the Economic Advisory Council (EAC) will be held at the Owyhee Plaza. The Council is appointed by the Governor to advise the Idaho Department of Commerce. For information contact Beth Sparks 334-2470 X2105.

January 12 Sandpoint Science Cafe Sandpoint

Sandpoint Science Cafe is held monthly on the 2nd Monday at 12:30 pm and is open to anyone interested in exploring the latest science and technology by engaging with featured scientists and researchers at the Tango Café in the INSB Financial Center, a local gathering place in Sandpoint, Idaho. The public will have ample opportunities to ask questions, voice opinions and learn about new subjects in a casual and informal setting. For more information contact Laurie Hassell at (208) 699-6240 or email at lhassell@nwabr.org

January 12 -14 Northwest Energy Innovation Summit 2009

Boise Centre on the Grove
Expert speaker panels include Industry leaders in innovation, research, corporate leadership, public policy and finance. Network with over 200 industry professionals & regional leaders. For information go to www.nwenergysummit2009.com

January 13-14 Economic Advisory Council/Idaho Travel Council Joint Meeting

Boise
A joint meeting of the Economic Advisory Council and the Idaho Travel Council will be held January 13 from 8:00 am to 1:30 pm at the Owyhee Plaza in Boise.

ESTech will launch with a noon grand opening on Jan. 24th at the intersection of Idaho 44 and Idaho 16.

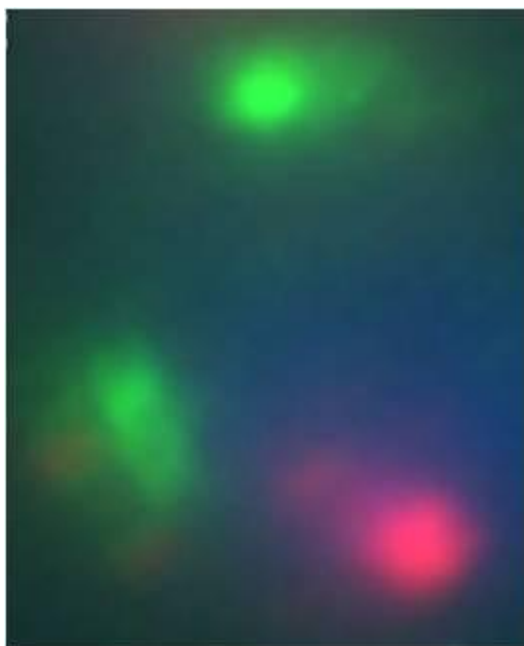


Credit: Eagle-Star Technology Corridor

For the complete Idaho Statesman article (Dec. 28, 2008) and list of ESTech supporters, visit <http://www.idahostatesman.com/hightech/story/615815.html>

Synthetic Estrogen and its Impact on the Environment

(Moscow) Scientists at the University of Idaho (UI) recently discovered that 17 α -ethynylestradiol, a synthetic estrogen present in birth control pills, can cause sperm cells in fish to have an abnormal number of chromosomes, a condition known as aneuploidy. An increased level of sperm aneuploidy was found to significantly reduce the embryonic survival rate of the fish it impacts.



Credit: University of Idaho

This photo shows the nucleus of a rainbow trout sperm. The red mark is a sex chromosome and the green is chromosome 20. Notice the extra green spot-- an extra chromosome 20. Synthetic estrogens in the environment can cause this genetic mutation.

The two councils are appointed by Idaho's Governor to advise the Idaho Department of Commerce. Tentative agenda items include a report from Commerce Director Don Dietrich, updates from each of the department's divisions on current activities, a presentation by a representative from the Office of Attorney General on ethics. The Idaho Travel Council will hold its meeting January 14.

January 13

Science on Tap

Coeur d'Alene

Science on Tap Coeur d'Alene, is held monthly on the 2nd Tuesday (except for June, July & August) at 5:30 pm and is open to anyone interested in exploring the latest science and technology by engaging with featured scientists and researchers at the Coeur d'Alene Brewery in Coeur d'Alene. The public will have ample opportunities to ask questions, voice opinions and learn about new subjects in a casual and informal setting. For more information contact Laurie Hassell at (208) 699-6240 or email at lhassell@nwabr.org

January 14

Small Business Survival Series: Better than a Box of Receipts

Boise

Regardless of the size of your company, good bookkeeping practices are essential to keeping your business running smoothly. Zions Bank, 6176 N. Eagle Rd., Boise - Wed. 07:30 am. Presented by The Jane of All Trades. RSVP to Marilyn Hickman at 208-658-7443 or Marilyn.Hickman@ZionsBank.com. Seminar is FREE but space is limited.

January 15

Kickstand Eastern Idaho

Idaho Falls

Meetings are held the 3rd Thursday of the month from 5:30 - 7:00 pm at Whitewater Grill (355 River Parkway, Idaho Falls)

17 α -ethynylestradiol is released into the environment through urination and is difficult to remove in waste treatment plants. In fact, very few plants are capable of removing it before water is released back into the environment.

Many places in the world contain levels close to, if not greater than, the synthetic estrogen levels used in its testing. This finding has raised many questions on how the synthetic estrogens in surface water might be affecting those using the water.

For a more information on this subject, visit
<http://www.today.uidaho.edu/Details.aspx?ID=4595>

SBIR/STTR Programs Up For Reauthorization

(National) The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs are up for reauthorization in March 2009. Although SBIR is a popular program, its reauthorization is never a sure bet. That is particularly true now, with many interests vying for limited Federal budget dollars.

SBIR was created to address a need that is still critical: to provide funding for some of the best early-stage innovation ideas, ideas that, however promising, are still too risky for private investors, including venture capital firms. The positive role of innovative small technology firms in the economy is evident not only in the dozen or so geographic strongholds of tech entrepreneurship across the nation, but also in the increased productivity of the companies that buy and use the innovations. That is perhaps the most compelling reason to maintain a strong, effective SBIR Program.

SBIR addresses a paradox at the heart of innovation funding: capital is always short until the test results are in. At the idea stage, and even the early development stage, the risks are too great for all but a few investors, but innovations cannot get beyond that stage without funding. There is another paradox. The federal government has R&D needs that, for a variety of reasons, will never interest private sector investors.

SBIR was designed specifically to solve both of these paradoxes: SBIR has been successful because it draws on the six million scientists and engineers that are now employed by small firms. That compares to the five million employed by medium-sized and large firms.

There is a House and Senate version of the SBIR reauthorization, and they are very different. Most small business owners favor the Senate version which currently includes:

- Increase in SBIR set aside from 2.5% of the agencies' extramural R&D budgets to 3.5%, except at NIH.
- Phase 1 awards as high as \$150k and Phase 2 awards up to \$1 million (caps adjusted based on inflation).
- The SBIR program would be reauthorized for 14 years, or until FY2022.
- No more than 8% of an agency's SBIR budget could be awarded to VC-owned firms (18% at NIH only)
- SBIR projects would still have to begin with a Phase 1 award (in the House bill you could skip Phase 1).

Time is getting short, and if you have concerns about the issues or need information, there are two organizations, the National Small Business Association <http://www.nsba.biz> and the Small Business Technology Council <http://www.sbtc.org> that can help answer your questions and even provide letters for you to send to your Congressional delegation.

Visit www.kickstandidaho.com

January 24
Eagle-Star Technology Corridor
(ESTech) Project Launch
Intersection of Idaho Hwy. 44 &
Hwy. 16
(See article this newsletter)

January 27
Kickstand Palouse
Moscow
Meetings are held the 4th
Tuesday of the month at 5:30 -
7:00 pm Sandpiper Restaurant
(436 N. Main St., Moscow) Visit
www.kickstandidaho.com

January 28
TechBoise
Boise
TechBoise is held the last
Wednesday of each month at the
WaterCooler (1401 W. Idaho,
Boise). Visit
www.techboise.com

Nanowire Cancer Cure

(Moscow) Scientists at the University of Idaho are engineering nanowires that when introduced into the bloodstream will find and attach to cancer cells. Once there, an electromagnetic field can heat the nanowires, destroying the targeted cells. The aim is to create a cancer treatment with significantly fewer side effects than radiation therapy or chemotherapy. The research is supported by a grant, from the Korean government.

Treating the nanowires with materials which will cause them to accumulate in cancerous cells but cause no toxic harm to the body is the challenge.

Project leader, Daniel Choi, Associate Professor of Materials Science and Engineering at University of Idaho, believes gold plating will take care of the biocompatibility, but polymers may also work.

Choi is also a member of a University of Idaho group called BANTech - a group aiming to integrate nanomaterials and bioscience research. The group has identified several promising candidates for antibodies which will cause the nanowires to seek out and attach to cancer cells.

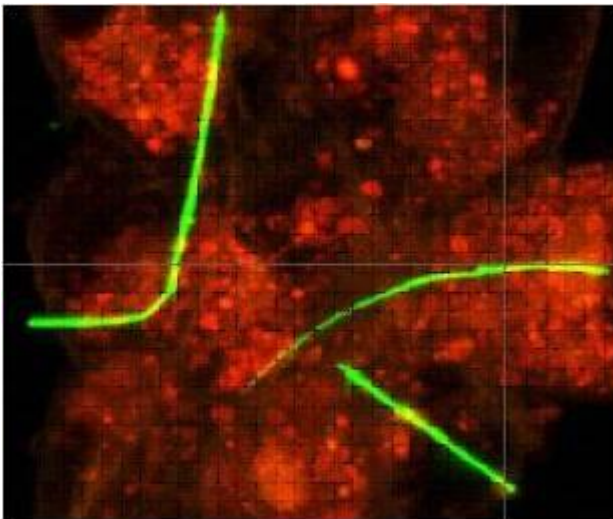


Photo by University of Idaho

This image depicts several cells coated with fluorescent dyes making them appear red. Three nanowires - the neon green lines - have successfully attached themselves to the cells

For more information, visit [http://www.today.uidaho.edu/details.aspx?id=4680'](http://www.today.uidaho.edu/details.aspx?id=4680)

Never Need Flashlight Batteries Again

Over the past three years, a group of University of Idaho alumni have been working to develop their "Light for Life," a rugged, bright, flashlight that can be fully recharged in 90 seconds and shine three times brighter than a D-cell flashlight for an hour before the state-of-the-art ultra capacitor needs another 90 second recharge. Initial marketing is being handled by 5.11 Tactical - supplier and outfitter to law enforcement, military and firefighting industries - to more than 400 distributors nationwide. The "Light for Life" will be released this February.

Meanwhile, David Alexander, CEO of IVUS Energy Innovations, and his team of Vandal alumni are exploring just about everything that uses a battery, as they look for the next device that can be improved with their technology.



The IVUS team
Picture by University of Idaho

For more information:

<http://www.uidaho.edu/idahovandals/vandalvibe/successstories/ivus.aspx>

University of Idaho Contributes to NASA Missions

(Moscow) The University of Idaho's (UI's) Center for Advanced Microelectronics and Biomolecular Research (CAMBR) developed three chips designed for NASA space missions, the Low Density Parity Check (LDPC) encoder, the Discrete Wave Transformer (DWT), and the Bit Plane Encoder (BPE). The LDPC encoder adds redundancy information to data before it is transmitted to earth thereby allowing for error corrections caused by signal degradation. The LDPC will be used in NASA's Landsat Data Continuity Mission, scheduled for July 2011. The DWT and BPE chips will be used in a NASA mission to study the earth's magnetic field, scheduled for 2012. The DWT filters and organizes data so that the BPE can compress it to a desired size for transmission to earth.



Credit: University of Idaho

Compression chips mounted on board at University of Idaho ready for testing.

CAMBR and NASA worked collaboratively to design these chips. For more information on UI's contribution to NASA missions, visit

(http://www.nasa.gov/centers/goddard/news/technology_2_pr.html and http://www.nasa.gov/centers/goddard/news/topstory/2008/technology_2.html)

Idaho News Corral, Daily Statewide News

The Idaho News Corral at <http://www.idahonewscorral.com> posts a variety of Idaho news. This website is searchable and includes articles on the following: agriculture, economy, energy, environment, health care, homeland security, politics, tourism, transportation, water. The Idaho News Corral currently has readers in cities throughout Idaho, 30 states, and 13 countries. If you choose to, you can sign up on the website to have the free "Daily Brief" from IdahoNewsCorral.com emailed to you each workday morning.



Credit: Idaho News Corral

Ideas Innovations Idaho License Plates



(Statewide) Specialty license plates that celebrate innovation and support Idaho's innovation industries are entering their third year of availability through the Idaho Transportation Department. Continued availability of the plate will depend on total sales. A portion of the proceeds from each plate sold goes to a fund that is used to develop programs and market the state's innovation sector.

More information is at <http://commerce.idaho.gov/technology/license-plate.aspx>

Have an Idea/Submission for this Newsletter?

Contact Brian Dickens, Administrator of Idaho Department of Commerce's Commercial Innovation Division at (208) 334-2650, ext. 2103, or at brian.dickens@innovation.idaho.gov

Read More Idaho Technology News

Miss last month's newsletter? For past newsletters go to <http://innovation.idaho.gov>. From the "INNOVATION" drop down menu, click on "NEWS."

"We Create Jobs, Strengthen Communities and Market Idaho."

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